

Amendments to the Claims

1. (Currently Amended) A method for producing chitosan from fungal biomass, comprising:

reacting the fungal biomass with a caustic at a pressure greater than 0 PSIG for at least 4 hours, thereby producing chitosan, wherein the average molecular weight of the chitosan is greater than 80,000 and less than about 258,933.

2. (Original) The method according to claim 1, further comprising separating the chitosan from the reaction.

3. (Original) The method according to claim 1, wherein the pressure is greater than 5 psig.

4. (Original) The method according to claim 1, wherein the pressure is greater than 10 psig.

5. (Original) The method according to claim 1, wherein the temperature is greater than 115°C.

6. (Original) The method according to claim 1, wherein the temperature is greater than 125°C.

7. (Previously Presented) The method according to claim 1, wherein the reaction occurs for greater than 15 hours.

8. – 10. (Canceled)

11. (Previously Presented) The method according to claim 1, wherein the caustic is 5% to 40% by weight percent.

12. (Previously Presented) The method according to claim 1, wherein the caustic is 15% to 30% by weight percent.

13. (Previously Presented) The method according to claim 1, wherein the reaction occurs for greater than 6 hours.

14. (Previously Presented) The method according to claim 1, wherein the reaction occurs for greater than 10 hours.

15. (Previously Presented) The method according to claim 1, wherein the pressure is greater than 15 PSIG.

16. (Previously Presented) The method according to claim 1, wherein the pressure is greater than 20 PSIG.

17. (Currently Amended) A method for producing chitosan from fungal biomass, comprising:
reacting the fungal biomass with a caustic at a pressure greater than 0 PSIG at a temperature greater than 125°C for at least 1 hour, thereby producing chitosan, wherein the average molecular weight of the chitosan is greater than 80,000 and less than about 258,933.

18. (Previously Presented) The method according to claim 17, wherein the reaction occurs for at least 12 hours.

19. (Canceled)

20. (Previously Presented) The method according to claim 1, wherein the fungal biomass is *Aspergillus* biomass.